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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/025,907	12/26/2001	Yun-Ho Jung	8733.565.00	7489
30827	7590	10/10/2006		
MCKENNA LONG & ALDRIDGE LLP 1900 K STREET, NW WASHINGTON, DC 20006				
			EXAMINER PADGETT, MARIANNE L	
			ART UNIT	PAPER NUMBER

1762

DATE MAILED: 10/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/025,907

Applicant(s)

JUNG, YUN-HO

Examiner

Marianne L. Padgett

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 27 July 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) 1-4 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 5-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

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1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 7/27/2006 has been entered.

2. It is noted that there are no amendments associated with this RCE, nor were there any amendments associated with the after final of 6/27/2006.

3. Claims 5-14 remain rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

To repeatedly reiterate, applicants have again added new limitations for stepping the stage in second direction after completing all block's crystallization in the 1<sup>st</sup> direction, but given no support therefor. A review of the figures, shows no irradiation pattern that suggest shifting in any direction but one, i.e., essentially like IM, showing only linear array of blocks. Nor was any discussion of a 3D array of blocks and/or the claimed second direction shift and implied (and argued) next row of blocks found in the body of the specification. While [0043] discusses options of X and Y axis directions, they are equivalently presented as the movement after crystallizing one block, not alternately used or used in the claimed series of steps after a row of blocks. For these reasons, lacking a showing in the original specification, the claims as amended appear to contain New Matter.

The present amendment has additionally added in other stepping limitation that further modifies the previous unsupported limitation, such that if there is no support for the first one there can't be any support for the second one, hence it appears that applicant has again introduced New Matter into the claims

As was noted in the advisory, paragraph [0043] was previously considered as discussed in section 2 of the 112, first paragraph rejection in the 3/27/2006 rejection. Applicant quotes a sentence therein and says that it "clearly and affirmatively states that the X-Y stages in moved in both the x and y directions", concluding movement in both first and second directions is contemplated. Applicant then cites [0044] to show that the discussed SLS method may be adopted in crystallization of large substrates, however teaching movement in both x & y directions does not provide support for the specifically claimed steps of moving the stage in first one direction (i.e. not both x and y directions, but only x or only y), then after completing another block of crystallization stepping the stage in a direction perpendicular (orthogonal) to the first direction (i.e. not both x and y directions, but only x or only y). While the examiner will agree from applicant's arguments that the disclosure in the specification is broad enough to encompass the specifically claimed language added via amendments of 1/4/2006, etc., it does not provide language necessarily directed to the specific limitations claim. If one is to conclude that the claim language is an obvious possibility given the teachings in the specification, one may also conclude that it is an obvious possibility to use the processes and teachings of Im et al. (6,368,945 B1) in a like manner, as they also teach an X-Y stage that can be moved in either X or Y direction.

Applicant's claims require a specific sequence of stage stepping movements in specific relative directions between movements/stepping of the mask to complete individual blocks, but the cited more general disclosure of paragraphs [0043-44] do not necessitate the specific sequence, hence the claimed thereof must remain considered New Matter. If applicants truly consider it such an obvious variation of the general disclosure that it should be considered supported as implied by applicant's arguments, reinstatement of the art rejection over Im et al. would have to be considered due to the obviousness of this undisclosed specific sequence, as implied by applicant's arguments.

4. References noted in the advisory to be of interest to the State of the art included:  
2005/0271952 A1 & PN 7,071,082 B2 to applicant, which are of interest for crystallization processes

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using masks, but do not claim the specific modes & sequence of movements to affect the claimed SLS process. Patents to Im (6,961,117 B2), Tanabe (6,989,300 B1) & Kasahara et al. (7,064,016 B2) are similarly of interest, while the following applications are not prior art, but are of interest to the state of the SLS art, particularly when employing masks; Im [et al.] (2005/0235903 A1, 2006/0040512 A1, 2006/0060130 A1 & 2006/0102901 A1); Yang (7,015,123 B2); Kumoni (2006/0065186 A1); Hwang (2006/0121369 A1); You (2006/0035478 A1, 2005/0233511 A1 & 2006/0003506 A1); Yamazaki et al. (6,984,573 B2 & 2006/0009016 A1); Sun (2006/0154154 A1); and Kim et al. (7,008,863 B2).

5. Applicant's arguments filed 7/27/2006 have been fully considered but they are not persuasive.

Applicant assertion that "the examiner asserts that IM falls within the disclosure cited by applicants to support the new claim language, and hence and therefore teaches the claimed feature" is entirely incorrect, since the cited support does NOT support the old "new" language, hence since IM has disclosure analogous to applicant's disclosure, which does NOT support the claim language, neither does IM. The language cited by applicant in the specification is broader, and not as specific as the present claim language, hence it is applicant who is improperly trying to employ broad specification language to support narrower claim limitations. Furthermore, as there is no rejection over IM at this point in the prosecution, nor has been since the present New Matter was introduced, hence applicant's assertion that the examiner rejected over IM is very strange.

For these reasons applicant's arguments remain very unpersuasive.

6. This is a RCE of applicant's earlier Application No. 10/025907. All claims are drawn to the same invention claimed in the earlier application and could have been finally rejected on the grounds and art of record in the next Office action if they had been entered in the earlier application. Accordingly, **THIS ACTION IS MADE FINAL** even though it is a first action in this case. See MPEP § 706.07(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no, however, event will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

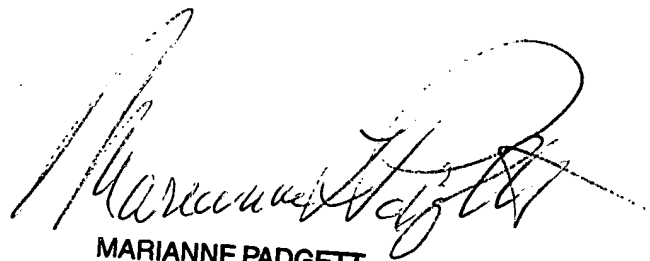
7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marianne L. Padgett whose telephone number is (571) 272-1425. The examiner can normally be reached on M-F from about 8:30 a.m. to 4:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Meeks, can be reached at (571) 272-1423. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MLP/dictation software

10/1/2006



MARIANNE PADGETT  
PRIMARY EXAMINER